ABSTRACT

IMPLEMENTATION PID IN THE SYSTEM CONTROL SPACE HEATER BASED MICROCONTROLLER ATMega 8535

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Final project aims to make hardware and software space heaters as a PID control system automatically controls heating control room and to know the performance of PID control applications using microcontroller ATmega 8535.

In designing the PID implementation In Space Heater Control System Based Microcontroller ATMega 8535. The author uses several hardware components that support the operation of this instrument, namely a temperature sensor LM35, optotriac MOC 3021, TRIAC BT136, microcontroller ATMega 8535, as well as a heated indoor measuring 30cm x 30cm x 30cm. For authors use software components to help codevision AVR C programming language, while the facility in microcontroller ATMega 8535 used is the external interrupt 0, timer 0, timer 1, and ADC. With the above design of this tool may be run according to expectations.

Performance of PID control system to control this whole space heaters can work well. Results of testing and discussion of PID parameters, shows the value of the temperature within the ideal temperature range hatch eggs. So this tool with the PID parameters such as testing, it can be used or applied as an egg incubator.

Keywords: PID Control, Space Heaters, Microcontroller ATmega 8535